

ABSTRACT

A system for converting an airflow into mechanical energy includes a drawtube and an airflow turbine capable of converting an airflow through the drawtube into rotational mechanical energy. The drawtube includes a tubular member with first and second open ends and a substantially planar leading edge member positioned in front of the first open end. As an airflow passes over the drawtube, a reduced pressure region results adjacent to the leading edge. The reduced pressure region in combination with counter-rotating eddies, or vortices, formed by the leading edge cause air to be drawn out of the first open end of the tubular member establishing an internal airflow which drives the turbine or other energy conversion device.